

### **REMARKS**

Claims 1-10 are pending in the above-reference patent application. Claims 1-10 were rejected by the Examiner in a Final Office Action, dated January 30, 2004. Applicants filed a Notice of Appeal, dated March 30, 2004, and an Appeal Brief, dated April 28, 2004. The Examiner issues an Examiner's Answer, dated June 15, 2004.

In the Final Office Action, the Examiner rejected claims 1-3 and 5-10 as being unpatentable under 35 USC § 103(a) over U.S. Patent No. 4,856,366 to Nikolaus and rejected claim 4 as being unpatentable under 35 USC § 103(a) over Nikolaus in view of U.S. Patent No. 6,024,548 to Bushnell. Applicants propose to amend claims 1 and 10.

#### **Claims 1-3 and 5-10:**

With respect to the rejection of claims 1-3 and 5-10 as being obvious in view of Nikolaus, the Examiner has stated that we failed to respond to a 'criticality' rejection. The Examiner indicates that the question of 'criticality' is whether the channel extending completely around the circumference of the bearing element solves any stated problem or was formed for any stated purpose. In essence, the Examiner rejects the claims because of a purported absence in the applicant's specification of a statement as to the 'criticality' or the purpose of the circumferential channel.

Applicants have proposed an amendment to claim 1, wherein the bearing element is formed as a single piece having a substantially cylindrical shape. Applicants submit that this amendment further distinguishes claim 1 from the cited prior art.

Nikolaus discloses a bearing element formed as two semi-cylindrical halves. Nikolaus fails to disclose a bearing element formed as a single piece. By forming the bearing element in two separate halves, Nikolaus has limited the extent of the channel to the approximately 180° encompassed by the bearing element half that lies adjacent the channel extending through the rod. Extending

the channel of Nikolaus past the gap between the two bearing element halves would have required significant effort, if it was even possible. For instance, at the very least, a complicated seal, configured to prevent leaks yet allow pressurized oil to pass between the halves via a channel in the seal, would be required. Assembling this bearing element/seal combination and then inserting this assembly into the connecting rod eye and inserting the crank pin into the bearing element/seal assembly (all the while insuring that the seal maintains its proper position) would be a difficult, if not an impossible, proposition. Moreover, by forming the bearing element with two separate halves, Nikolaus has limited the placement of the ports that introduce oil into the channel from the crank pin. In particular, the oil ports of the Nikolaus device could not be placed at 0° and at 180°, as the gaps between the two halves are located at 0° and at 180°.

The bearing element of the present invention, being formed as a single piece allows the oil channel to extend more than 180° around the bearing element without needing a complicated sealing arrangement or requiring special seal-related installation procedures. The bearing element of the present invention, being formed as a single piece also allows the ports, which introduce oil into the channel from the crank pin, to be placed anywhere around the circumference of the bearing element. Having the ability to place the oil ports anywhere around the circumference provides the freedom to time the oil pulses with respect to the compression phase of the piston and with respect to the suction phase. This timing aspect of the oil port placement is disclosed in the paragraph bridging pages 13 and 14 in the specification of the instant application.

In addition, Applicants believe that there is absolutely no legal basis for any "question of criticality" or any arguments based on "criticality" now being made by the Examiner. The Examiner has not cited any law or rules to support his position. Applicants respectfully submit that no such laws or rules exist to support the Examiner's "criticality" position.

The Examiner has also dismissed Applicants' arguments that a *prima facie* case of obviousness has not been presented. In particular, the Examiner has dismissed Applicants' argument that a person of ordinary skill would not be motivated to extend the channel past the ports of Nikolaus, by indicating in his Answer that motivation is not required when the rejection is based on "criticality." The Examiner stated on page 5 of his Answer that "the rejection was based on the criticality issue on Appellant's disclosure rather than the rejection based on combination of references or the rejection based on what the Examiner has recognized. The motivation [to extend the channels of Nikolaus past the ports] would be required when the rejection is based on the combination of references." In essence, the Examiner's position is that motivation to modify the teachings of the prior art is not required when the rejection is based on his "criticality" position.

Applicants strongly disagree with the Examiner's position. For every obviousness rejection under 35 USC § 103, the Examiner is legally required to establish a *prima facie* case and as part of that *prima facie* case the Examiner must present the motivation to modify the cited prior art. As stated in MPEP 2142, Legal Concept of *Prima Facie* Obviousness, in the sub-section on page 2100-128 entitled ESTABLISHING A *PRIMA FACIE* CASE OF OBVIOUSNESS:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

As further stated in MPEP 2143.01, Suggestion or Motivation to Modify the References, in the sub-section entitled THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION:

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

In his Answer, the Examiner uses his "criticality" requirement to impermissibly brush aside the basic legal criteria that must be met in order to

establish a *prima facie* case of obviousness. The Examiner has failed to establish where there is any teaching, suggestion or motivation to modify the teachings of the prior art, and by this failure as failed to establish a *prima facie* case of obviousness.

Thus, for at least these reasons, Applicants submit that claim 1 is patentably distinguishable over Nikolaus as applied by the Examiner. Since claims 2-10 depend from claim 1, they also are patentably distinguishable over the applied reference.

Claim 4:

With respect to the rejection of claim 4 as being obvious in view of Nikolaus combined with Bushnell, the Examiner has stated that "the rejection [was] based on the concept of a pocket 40-11 being defined in the crank pin 40-2 in the area near the opening 40-8 to distribute oil as disclosed by Bushnell that can be modified in the oil distribution arrangement discussed in Nikolaus." The Examiner stated that the channel 40-11 of Bushnell can be construed to be a 'pocket,' and that it would have been obvious to combine the Nikolaus oil well recesses 54 with the Bushnell channel 40-11 to provide more effective lubrication. In essence, the Examiner argues that the open-ended channel 40-11 of Bushnell can be construed to be a closed pocket and that the oil distribution arrangement of Nikolaus can be modified to incorporate the modified Bushnell concept. Applicants disagree.

Bushnell discloses that oil supplied to a passage 40-8 in eccentric 40-2 flows to axial groove 40-11 (see Fig. 2), and that at least a portion of this oil flows into annular recess 22-2 (col. 2, lines 56-58). Importantly, eccentric 40-2, which is not a crank pin, does not rotate relative to its housing, piston 22. Thus, the groove 40-11 of Bushnell is not provided between two rotating parts. In addition, groove 40-11 is a channel having two open ends for allowing passage of oil. A "channel" is not a receptacle, a container, a cavity or a "pocket," no matter how the Examiner attempts to stretch the definition of "pocket."

The Examiner's arguments are all based on hindsight and erroneous technical arguments. First, there is no motivation to modify Nikolaus to provide a pocket on the crank pin, given Nikolaus's oil well recesses on the bearing element. Second, Bushnell's open-ended channel 40-11 is not provided to better distribute oil between two rotating parts (eccentric 40-2 does not rotate relative to piston 22), but only to channel oil from sump 36, via bore 40-6, to an upper chamber 22-2. Thus, Bushnell's open-ended channel between non-rotating parts, which is designed for oil passage only, cannot be construed to be a pocket between rotating parts for facilitating oil distribution between the rotating parts. Third, modifying the channel of Bushnell to function as a pocket in a manner not disclosed by Bushnell, without any motivation to modify the Bushnell channel being presented, and then combining this modified Bushnell with Nikolaus, again without any motivation to combine these references, is clearly improper.

Thus, for at least these reasons, Applicants submit that claim 4 is patentably distinguishable over Nikolaus in view of Bushnell as applied by the Examiner.

Claim 10:

In the Final Office Action, the Examiner also objected to the drawings under 37 CFR 1.83(a) stating that the drawings must show every feature of the invention specified in the claims. The Examiner stated that the bearing element and the rod eye each including alignment marks as recited in claim 10 must be shown or the features canceled from the claims. Further, in the Final Office Action, the Examiner objected to the amended Figure 3, which Applicant had filed on October 15, 2001, stating that new material had been added which was not supported by the original specification. This amended FIG. 3 showed alignment marks on both the bearing element and the rod eye.

Although Applicants do not concede that amended FIG. 3 introduced new matter, by this proposed amendment, Applicants withdraw their submission of amended FIG. 3 and comply with the Examiner's requirement to cancel features not shown in the drawings from the claims, in order to further the prosecution of this application. Specifically, Applicants propose amending claim 10 such that

only features shown in the drawings are recited. As proposed, claim 10 has been amended to (1) remove a duplicative recitation of the words "the bearing element"; and (2) recite that "at least one of the bearing element and the rod eye includes an alignment mark for aligning said bearing element with said rod eye."

Applicants respectfully submit that this amendment does not constitute new matter as this amendment is amply supported by the drawings, the specification and by the originally filed claim 10. Original FIG. 3 shows an alignment mark on bearing element 5 and, thus, original FIG. 3 shows that at least one of the bearing element and the rod eye includes an alignment mark. The original specification discloses that:

"Preferably, the bearing element and the second connecting rod eye are provided with mutually adapted markings. This ensures that during mounting, the connecting rod eye and the bearing element are joined with the correct orientation." (Page 7, lines 6-8 of the original specification.)

Claim 10 as originally filed states that "the rod eye and bearing element each include alignment marks." Per MPEP Section 608.01(I), in establishing a disclosure, Applicant may rely not only on the description and drawings as filed but also on the original claims if their content justifies it. In this instance, the original claim 10 itself constitutes a clear disclosure of this subject matter, for if according to original claim 10, both the bearing element and the rod eye include alignment marks, then at least one of the bearing element and the rod eye must include an alignment mark.

Based on the foregoing, Applicants respectfully submit that the Examiner's objection to the drawings has been obviated.

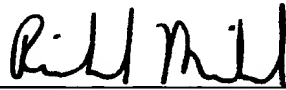
Applicants respectfully request the entry of this amendment. In the event that the Examiner maintains his rejections, Applicants submit that entry of this amendment would place the claims in better condition for appeal.

If any matter remains unresolved, the Examiner is respectfully requested to contact Applicants' representative at the number listed below.

Application No. 09/977,409  
Amendment dated August 16, 2004  
Reply to Office Action of Jan. 30, 2004

While Applicants believe no fees are due upon filing this response, please charge any deficiencies in fees associated with the filing of this amendment to our Deposit Account No. 13-0235.

Respectfully submitted,

By   
Richard R. Michaud  
Registration No. 40,088  
Attorney for Applicants

McCormick, Paulding & Huber LLP  
CityPlace II  
185 Asylum Street  
Hartford, Connecticut 06103-3402  
(860) 549-5290